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ABSTRACT

This digest provides practical advice on evaluating software for managing student records. An evaluation of record-keeping software should start with a process to identify all of the individual needs the software produce must meet in order to be considered for purchase. The first step toward establishing an administrative computing system is forming a schoolwide committee that can provide input for developing school-specific evaluation criteria, solicit products from vendors, and examine those products. Once a committee has been established, the members should examine the administrative functions that need to be computerized. Needs analysis should examine the school's capacity to enable faculty and staff to make more productive use of their time and its capability to provide accurate data on individual students that can be used to meet student needs. School officials need to play a vital role in deciding which administrative functions should be automated. The working committee should draft criteria to compare and evaluate each system under consideration. The committee may have to develop and use a quantitative measure on which to base a decision about the software. (SLD)

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A Process for Evaluating Student Records Management Software

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Organizing and managing student records into a cohesive and efficient system might seem like an impossible task. There is a wide array of existing information and information needs, yet schools are often limited by personnel and financial concerns. Large districts can be overwhelmed by the sheer number of students. Further, each institution has its own unique way of keeping track of and reporting on the details of their student's academic and behavioral data. To help schools meet this challenge, several vendors market flexible, high-end software commercial software packages.

Schools need to weigh features and requirements of the software against their own unique needs, desires and capabilities. This article provides practical advice on evaluating such high-end record-keeping software products. Emphasis here is on the evaluation process and the identification of value-based evaluative criteria. A good discussion on some factual criteria for evaluating record-keeping software can be found in Wright (1990).

Evaluations often start with a process to identify of the decisions that will be made. An evaluation of record-keeping software should start with a process to identify of the individual needs the software product must meet in order to be considered for purchase. How in-depth this process should be depends on the size of the school and the number of officials involved in the decision making process. Large school districts may need to draft detailed requirements and solicit proposal requests from vendors. Small public or private independent schools may need to go through a less formal process. Regardless of size and bureaucratic structure, each school must consider the formation of a school-wide committee, the role the administrator will take in this process, the requirements of the school, the design of the system, the implementation of the chosen product, and the ability to consult the software company.

Forming a School-Wide Committee & Information Gathering

The first step toward establishing an administrative computing system is forming a school-wide committee that can provide input for developing school-specific evaluation criteria, solicit products from vendors, and examine those products. Connors and Valesky (1986) observe that the primary role of this committee is to identify which school administrative functions are best suited for computerization. This group should consist of a representative group of administrators, teachers, counselors, librarians, and computer experts. Each member should provide input based on their area of expertise.

Administrators should consider involving other future-users who will have the most daily contact with the system (i.e., secretaries, clerks, and business officials). Input from counselors, teachers, and office staff who actually are responsible for scheduling, student record management, creating report cards, and other functions should facilitate the most appropriate software selection. The involvement of these faculty and staff members will familiarize them with the system's structure and capabilities. In turn, these people will be able to take on leadership roles in the computerization of school records by performing such duties as demonstrating particular functions of the software or training other faculty and staff members. Thus, the inclusion of a wide range of people on this committee aids in ensuring the eventual smooth integration of the software into the daily activities of the school.

It is important that all committee members participate in all the evaluation activities. Attending software demonstrations by vendor sales representatives provides a forum for committee members to ask questions regarding their specific areas of expertise. Committee members should also have a chance to use the system or specific module with which they will eventually work. Many vendors provide product demonstrations on CD ROM or on a diskette that users can install on their computer. These product demos enable users to get a sense of what the software interface looks like, how different modules relate to each other, and how specific functions work. If the vendor provides the software on a trial basis, the school may want to consider installing those modules and loading some school data in order to get a better sense of how the system will function in their school setting. Because this is time-consuming for the computer coordinator, schools may want to do this after they have narrowed the decision down to two or three products.

In addition to needs analysis and product evaluation, committee members should be given administrative leave to observe how software packages function at other schools. Regardless of how impressive the sales representative's demonstration is, a demonstration will not be as revealing as seeing how the system functions in an actual school setting. Interviewing other schools can provide committee members with a greater understanding of how the system can increase their own school's productivity as well as what initial training and data entry tasks they face.

Needs Analysis

Once a committee has been established, the members should examine which administrative functions need to be computerized. The software packages generally consist of modules that can be purchased separately and address particular functions such as school records, attendance, scheduling, and progress (grades or marks). The committee might begin by examining the current management process of these areas and deciding what functions could be expedited by automation and how the software must be able to accommodate for the school's particular method of representing data. For example, the software system must be able to adapt to how the school calculates grades as well as how the school chooses to create and format its schedule. Most reputable vendors provide enough flexibility in their programs to allow for user-defined fields and a variety of scenarios. However, if a specific need cannot be met by the software packages under evaluation, schools may have to make some concessions. If a school's unique needs are known before the software is purchased, accommodations usually can be made.

As schools begin to delineate how data is currently gathered and used in the four broad areas addressed by integrated student records management software (school records, grades, scheduling, and attendance), they should also begin to establish a priority order for the integration of the selected software product. It may not be advisable to automate all areas. For example, the needs of a small private elementary school may not warrant the purchase of the most powerful scheduling module available in integrated systems. It may

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be easier for a school like that to use a generic database program and import data into that program to create a student's schedule.

After the committee has determined which data management areas need to be computerized, the committee should prioritize in what order these areas should be addressed. The school should be guided by three main factors during this process: the availability of finances, the needs of the school, and the ability to train school personnel. School funding determines which software systems and which modules a school committee should consider during the decision process. The ability to train people to use the system determines how effectively the system will be used. This is especially troublesome if the software is complex. Therefore, a committee should consider how well its school can prepare all faculty and staff members who need to access and input data in the system to perform required tasks.

The two fundamental issues that a school committee should examine are the school's capability to enable faculty and staff to make more productive use of their time and its capability to provide accurate data on individual students that can be utilized in a way which effectively meets the needs of the students. The data gathering and reporting abilities of integrated systems allow school personnel to create fuller descriptions of individual students' progress and achievement than was previously possible using traditional reports. Additionally, student records software provides a greater variety of comment, increases pupil involvement in and responsibility for the reporting process, assists the integration of curriculum and good pedagogic practice, and produces a more constructive and positive diagnostic assessment of pupil progress (Wilson and Armstrong, 1993).

The Role of the Administrator

Integrated student records management systems allow for more efficient organization of school data. Powerful reporting and query capabilities permit administrators to track and analyze data in ways that were not previously possible. Moreover, integrated software packages give school or building-level administrators within districts more independence for gathering and analyzing data. These also keep the administrators from being "completely dependent on the services of a central or district data processing manager" (Bozeman and Spuck, 1994, p.42).

Knowing the administrative importance of choosing an effective integrated student records management software product, it is clear to see that school officials need to play a vital role in the deciding which administrative function should be automated. Administrators are able to provide important information about their school's current and future record keeping needs. Moreover, school administrators determine the degree to which a software product will be utilized in order to "contribute to institutional improvement" (Bers, 1992, p. 3).

System Design

As the working committee members gather information about packages, they should consider how the system will ultimately serve their unique and general institutional needs. A set of criteria should be drafted in order to compare and evaluate each system. Peter Wright (1990) suggested "staged approach" to evaluation where "systems are evaluated against progressively more detailed criteria" (p.218). The first stage of evaluation is characterized by the performance of certain tasks:

1. the identification of software products,
2. the acquisition of information such as literature reviews,
3. discussions with product developers / vendors as well as the faculty and staff of other schools who use different software products,
4. the general screening of available software, and
5. the analysis of institutional needs.

During this stage of evaluation, committee members should partake in system demonstrations and detailed discussions with developers/distributers. Wright (1990) advised that as the evaluators think about how the system will meet their particular needs, the resulting analysis should be a reflection of the following:

- Current needs and requirements (i.e. the manner in which things are presently done)
- How things should operate in the future
- Potential uses of the system that committee members previously did not know were possible

Throughout this process, analysis will shift from general system considerations to the module specific criteria. The knowledge and expertise of individual committee members will be invaluable as the analysis begins to narrow in focus.

Once this stage is complete, the committee members should be able to recommend a system that will meet most if not all of their school's current and anticipated needs. The decision should be based on sufficient data and information as well as a thorough analyses of available software products. However, if a final decision is not imminent at this point, the committee members might consider developing and using a quantitative measure on which they can base their decision. This process includes assigning weighted scores to both the general systems and module specific criteria as well as calculating the performance of each system based on a ration of how well a system performed compared to how well it could have performed. While this approach is certainly more objective than using a "checklist" procedure, it is probably too time consuming for the members of evaluation committees who are involved in this process in addition to teaching and administrative responsibilities. As Wright (1990) indicates, this process is more suited for districts or consortia of private independent schools that have time and resources.

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